

Claims

What is claimed is:

1. An apparatus for generating a proprietary program signal, comprising:
 - (a) a monitor for receiving and monitoring a broadcast programming signal;
 - (b) an editing unit for generating, as a function of said broadcast programming signal, a marking signal representative of information for modifying said broadcast programming signal;
 - (c) a first communication system coupled to said editing unit for transmitting said marking signal;
 - (d) a receiver for receiving said broadcast programming signal;
 - (e) a buffer coupled to said receiver for storing said broadcast programming signal;
 - (f) a second communication system for receiving said marking signal from said first communication system; and
 - (g) a processor coupled to said buffer and said second communication system for modifying said broadcast programming signal in response to said marking signal.
2. The apparatus of claim 1, further comprising a marking interface coupled to said processor for receiving input signals representative of user-

generated instructions for selection of a marking signal for use in modifying said broadcast programming signal.

3. The apparatus of claim 2, wherein said user-generated instructions are user-generated remote control instructions.
4. The apparatus of claim 1, wherein said receiver comprises two or more tuners for receiving multiple broadcast programming signals simultaneously.
5. The apparatus of claim 1, wherein said second communication system comprises a receiver for receiving said marking signal.
6. The apparatus of claim 1, wherein said second communication system is a point-to-point communication device.
7. The apparatus of claim 6, wherein said point-to-point communication device is a cellular telephone.
8. The apparatus of claim 1, wherein said information for modifying a broadcast programming signal is a time notation relative to a program segment of said broadcast programming signal.
9. The apparatus of claim 8, wherein said time notation is selected from the group consisting of a time notation relative to a beginning of a program segment of said broadcast programming signal and a time notation of an absolute time of a program segment of a broadcast programming signal.

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10. The apparatus of claim 8, wherein said second communication system is further for transmitting a signal representative of a program identification system.
11. The apparatus of claim 10, wherein said program identification system is a numerical guide.
12. The apparatus of claim 8, wherein said first communication system is further adapted for receiving said signal representative of a program identification system and for transmitting a marking signal representative of information on a time notation relative to a program segment of said broadcast programming signal in response thereto.
13. The apparatus of claim 12, wherein said second communication system is further for receiving said marking signal representative of information on a time notation relative to a program segment.
14. The apparatus of claim 13, wherein said buffer is further for marking said stored broadcast programming signal with a marker representative of a time of recording of said broadcast programming signal.
15. The apparatus of claim 14, wherein said processor is further for matching said marking signal representative of information on a time notation relative to a program segment with said marker, thereby synchronizing said stored broadcast programming signal with said marking signal representative of information for modifying a broadcast programming signal.

16. The apparatus of claim 1, wherein said information for modifying a broadcast programming signal comprises a frame of video of said broadcast programming signal.
17. The apparatus of claim 16, wherein said second communication system is further for transmitting a signal representative of a program identification system.
18. The apparatus of claim 17, wherein said program identification system is a numerical guide.
19. The apparatus of claim 17, wherein said first communication system is further adapted for receiving said signal representative of a program identification system and for transmitting a marking signal representative of information on a frame of video of said broadcast programming signal in response thereto.
20. The apparatus of claim 19, wherein said second communication system is further for receiving said marking signal representative of information on a frame of video of said broadcast programming signal.
21. The apparatus of claim 20, wherein said processor is further for matching said marking signal representative of information on a frame of video of said broadcast programming signal with the corresponding frame of video of said stored broadcast programming signal, thereby synchronizing said stored broadcast programming signal with said marking signal representative of information for modifying a broadcast programming signal.

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22. The apparatus of claim 1, wherein said processor comprises a selection control program for generating a signal representative of a user-specified program selection for receiving and storing a broadcast programming signal.
23. The apparatus of claim 22, wherein said selection control program is further for monitoring said user-specified selection and generating a program selection signal representative of said user-specified program selection.
24. The apparatus of claim 1, wherein said processor comprises a viewing control program for monitoring user viewing habits and generating a viewing log of said broadcast programming signal viewed by said user.
25. The apparatus of claim 1, wherein said processor comprises a viewing control program for monitoring user viewing habits and generating a topic data signal representative of user preferences based on said viewing habits.
26. The apparatus of claim 25, wherein said processor further comprises a database memory for storing said topic data signal.
27. The apparatus of claim 25, wherein said processor is further for generating an edit signal representative of instructions for modifying a selection of programs of a second broadcast programming signal to be recorded in response to said topic data signal and said marking signal.
28. The apparatus of claim 1, wherein said processor comprises a viewing control program for monitoring user viewing habits and generating a

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priority data signal representative of user priority preferences based on said viewing habits.

29. The apparatus of claim 28, wherein said processor further comprises a database memory for storing said priority data signal.
30. The apparatus of claim 28, wherein said processor further comprises a segment processor, responsive to said priority data signal, for ordering segments of said broadcast programming signal according to said viewing habits.
31. The apparatus of claim 1, further comprising a data interface for coupling to a source of computer-readable data, said computer-readable data being representative of information suitable for viewing on a monitor.
32. The apparatus of claim 31, wherein said computer-readable data is representative of a beginning of a program segment.
33. The apparatus of claim 32, wherein said marking signal is generated based on said computer-readable data.
34. The apparatus of claim 31, wherein said computer-readable data comprises a menu of program segments, a beginning of each of said program segments corresponding to a particular marking signal.
35. The apparatus of claim 34, wherein said computer-readable data further comprises program segment information.

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36. The apparatus of claim 35, wherein said processor is further for halting playback of said broadcast programming signal during viewing of said program segment information.
37. The apparatus of claim 35, wherein said processor is further for allowing simultaneous viewing of said broadcast programming signal and said program segment information.
38. The apparatus of claim 35, wherein said processor is coupled to said data interface and is adapted for determining time remaining in a program segment or a total broadcast programming signal based on said program segment information and is adapted for generating a time remaining signal.
39. The apparatus of claim 34, wherein said processor comprises a search program for searching said broadcast programming signal and/or said computer-readable data for the occurrence of a selected search term.
40. The apparatus of claim 1, wherein said processor further comprises a segment processor for deleting a second segment of said stored broadcast programming signal in response to said marking signal, said marking signal indicating a second segment of said broadcast programming signal that is redundant with a first segment of said broadcast programming signal.
41. An apparatus for generating a proprietary program signal, comprising:
 - (a) an editing unit for generating, as a function of said broadcast programming signal, a first marking signal, including a blocking

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signal, representative of information for modifying said broadcast programming signal;

- (b) a first communication system coupled to said editing unit for transmitting said marking signal;
- (c) a receiver for receiving said broadcast programming signal;
- (d) a buffer coupled to said receiver for storing said broadcast programming signal;
- (e) a second communication system for receiving said marking signal from said first communication system; and
- (f) a processor coupled to said buffer and said second communication system for modifying said broadcast programming signal in response to said marking signal.

- 42. The apparatus of claim 41, wherein said blocking signal is representative of information for preventing the deletion of a segment of said broadcast programming signal.
- 43. The apparatus of claim 42, wherein said processor is further for removing said blocking signal from said marking signal, thereby allowing deletion of said segment of said broadcast programming signal.
- 44. The apparatus of claim 41, wherein said blocking signal is representative of information for preventing the viewing of a segment of said broadcast programming signal.

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45. The apparatus of claim 44, wherein said processor is further for removing said blocking signal from said marking signal, thereby allowing viewing of said segment of said broadcast programming signal
46. The apparatus of claim 41, wherein said blocking signal is representative of information for preventing the selection of a second marking signal until after a predefined segment of said broadcast programming signal has been viewed.
47. The apparatus of claim 41, further comprising a marking interface coupled to said processor for receiving input signals representative of user-generated instructions for selection of a marking signal for use in modifying said broadcast programming signal.
48. The apparatus of claim 47, wherein said user-generated instructions are user-generated remote control instructions.
49. An apparatus for generating a proprietary program signal, comprising:
 - (a) a monitor for receiving and monitoring a broadcast programming signal;
 - (b) an editing unit for generating, as a function of said broadcast programming signal, a marking signal representative of information for modifying said broadcast programming signal;
 - (c) a first communication system coupled to said editing unit for transmitting said marking signal;

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- (d) a buffer coupled to said receiver, said buffer containing a stored broadcast programming signal;
 - (e) a second communication system for receiving said marking signal from said first communication system; and
 - (f) a processor coupled to said buffer and said second communication system for modifying said broadcast programming signal in response to said marking signal.
50. The apparatus of claim 49, wherein said buffer is initially located remotely from the user's system and could be selected from the group consisting of a digital video disc, a compact disc or other media storage, an Internet server, and a cable broadcast server.
51. A method of generating a proprietary program signal, comprising the steps of:
- (a) generating a marking signal, including a blocking signal representative of information preventing the deletion of a segment of a broadcast programming signal; and
 - (b) transmitting said marking signal to a remote location,
- whereby a user who receives said broadcast programming signal and said marking signal at said remote location is prevented from deleting those segments of said broadcast programming signal denoted by said blocking signal.

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52. The method of claim 51, further comprising the step of processing said marking signal so as to remove said blocking signal, thereby allowing deletion of said segment of said broadcast programming signal.
53. A method of generating a proprietary program signal, comprising the steps of:
- (a) generating a marking signal, including a blocking signal representative of information preventing the viewing of a segment of a broadcast programming signal; and
 - (b) transmitting said marking signal to a remote location,
- whereby a user who receives said broadcast programming signal and said marking signal at said remote location is prevented from viewing those segments of said broadcast programming signal denoted by said blocking signal.
54. The method of claim 53, further comprising the step of processing said marking signal so as to remove said blocking signal, thereby allowing viewing of said segment of said broadcast programming signal.
55. A method of generating a proprietary program signal, comprising the steps of:
- (a) generating a first marking signal, including a blocking signal representative of information for preventing the selection of a second marking signal until after a predefined segment of a broadcast programming signal has been viewed; and

- (b) transmitting said marking signal to a remote location,

whereby a user who receives said broadcast programming signal and said marking signals at said remote location is prevented from selecting said second marking signal until after a predefined segment of said broadcast programming signal denoted by said first marking signal has been viewed.

- 56. A method for generating a proprietary program signal, comprising the steps of:
 - (a) receiving a first broadcast programming signal;
 - (b) generating a marking signal representative of information for modifying said first broadcast programming signal;
 - (c) transmitting said marking signal to a remote location;
 - (d) monitoring user viewing habits during the viewing of said first broadcast programming signal;
 - (e) generating a viewing log signal in response to said user viewing habits during viewing of said first broadcast programming signal;
 - (f) receiving a second broadcast programming signal; and
 - (h) generating a marking signal representative of information for modifying said second broadcast programming signal in response to said viewing log signal.
- 57. The method of claim 56, further comprising the step of receiving said viewing log signal from a remote location.

58. A method for generating a proprietary program signal, comprising the steps of:
- (a) receiving a first broadcast programming signal and a first marking signal representative of information for modifying said first broadcast programming signal;
 - (b) monitoring user viewing habits during the viewing of said first broadcast programming signal;
 - (c) generating a topic data signal representative of user preferences based on said viewing habits;
 - (d) receiving a second broadcast programming signal and a second marking signal representative of information for modifying a selection of programs of said second broadcast programming signal to be stored in a buffer; and
 - (e) generating a proprietary program signal containing program segments having characteristics representative of said user preferences in response to said topic data signal and said second marking signal.
59. A method for generating a proprietary program signal, comprising the steps of:
- (a) receiving a first broadcast programming signal and a first marking signal representative of information for modifying said first broadcast programming signal;

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- (b) monitoring user viewing habits during the viewing of said first broadcast programming signal;
 - (c) generating a priority data signal representative of user preferences based on said viewing habits;
 - (d) receiving a second broadcast programming signal and a second marking signal representative of information for modifying said second broadcast programming signal; and
 - (e) generating a proprietary program signal having program segments ordered based on said user preferences in response to said topic data signal and said second marking signal.
60. The method of claim 58 or 59, further comprising the step of storing said broadcast programming signals.
61. A method for generating a proprietary stored program signal, comprising the steps of:
- (a) receiving a first set of broadcast programming signals in response to a plurality of user-specified program selections;
 - (b) storing said first set of broadcast programming signals;
 - (c) monitoring said user-specified program selections;
 - (d) generating a program selection signal representative of said user-specified program selections; and

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- (e) receiving and storing a second set of broadcast programming signals in response to said program selection signal.

62. A method of generating a proprietary program signal, comprising the steps of:

- (a) receiving computer-readable data, said computer-readable data being representative of a beginning of a program segment; and
- (b) generating a marking signal in response thereto, said marking signal being representative of information for modifying a broadcast programming signal.

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63. A method of generating a proprietary program signal, comprising the steps of:
- (a) generating a marking signal representative of information for modifying a broadcast programming signal;
 - (b) transmitting said marking signal to a remote location;
 - (c) generating computer-readable data, said computer-readable data being representative of a menu of program segments, each of said program segments corresponding to a particular marking signal;
 - (d) transmitting said computer-readable data to said remote location,
- whereby a viewer at said remote location may select a marking signal for modifying said broadcast programming signal based on said computer-readable data.
64. The method of claim 63, wherein said computer-readable data further comprises program segment information.
65. The method of claim 64, further comprising the step of halting playback of said broadcast programming signal during viewing of said program segment information.
66. The method of claim 64, further comprising the step of viewing said program segment information simultaneously with viewing said broadcast programming signal.
67. The method of claim 64, further comprising the steps of:

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- (a) generating a time remaining signal based on said program segment information and representative of the time remaining in a program segment or a total broadcast programming signal; and
- (b) displaying the time remaining in a program segment or total broadcast programming signal based on said time remaining signal.

68. The method of claim 63, further comprising the steps of:

- (a) receiving computer-readable data representative of viewer comments related to said broadcast programming signal; and
- (b) transmitting said computer-readable data representative of viewer comments to said remote location.

69. A method for generating a proprietary program signal, comprising the steps of:

- (a) receiving a broadcast programming signal;
- (b) monitoring said broadcast programming signal;
- (c) generating, as a function of said broadcast programming signal, a marking signal representative of information for modifying said broadcast programming signal;
- (d) receiving from a user a signal representative of a program identification system;
- (e) generating a marking signal representative of a time notation relative to a program segment of said broadcast programming

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signal in response to said signal representative of a program identification system; and

- (f) transmitting said marking signal representative of information for modifying a broadcast programming signal and said marking signal representative of a time notation relative to a program segment to a remote location,

whereby a user at said remote location may synchronize said marking signal representative of information for modifying a broadcast programming signal with a stored broadcast programming signal using said marking signal representative of information on a time notation relative to a beginning of a program segment.

- 70. The method of claim 69, wherein said time notation relative to a program segment of said broadcast programming signal is selected from the group consisting of a time notation relative to a beginning of a program segment of said broadcast programming signal and a time notation of an absolute time of a program segment of a broadcast programming signal.
- 71. A method for generating a proprietary program signal, comprising the steps of:
 - (a) receiving a broadcast programming signal;
 - (b) monitoring said broadcast programming signal;
 - (c) generating, as a function of said broadcast programming signal, a marking signal representative of information for modifying said broadcast programming signal;

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- (d) receiving from a user a signal representative of a program identification system;
- (e) generating a marking signal representative of a frame of video of said broadcast programming signal in response to said signal representative of a program identification system; and
- (f) transmitting said marking signal representative of information for modifying a broadcast programming signal and said marking signal representative of a frame of video to a remote location,

whereby a user at said remote location may synchronize said marking signal representative of information for modifying a broadcast programming signal with a stored broadcast programming signal using said marking signal representative of a frame of video.

72. The method of claim 69 or 71, wherein said program identification system is a numerical guide.

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